

INFORMATION DISCLOSURE STATEMENT	Case Name.	C. Pai 25-12
	Serial No.	
	Applicant:	C. Pai, et al.
	Filing Date:	September 5, 2003
	Group:	

U.S. PATENT DOCUMENTS

*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date
	AA	2,939,952	6/7/60	Paul et al.	250	41.9	12/21/54
	AB	5,248,883	9/28/93	Brewer et al.	250	292	5/12/92
	AC	5,501,893	3/26/96	Laermer et al.	428	161	11/27/93
	AD	5,793,091	8/11/98	Devoe	257	432	12/13/96
	AE	6,459,080	10/1/02	Yin et al.	250	288	6/2/99
	AF	6,469,298	10/22/02	Ramsey et al.	250	292	9/20/99

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation
	AG	WO 01/22079 A2	3/29/01	PCT	G01N	30/72	Yes
	AH	WO 00/11208	3/2/00	PCT	C12Q	1/00	Yes

OTHER (including Author, Title, Date, Pertinent Pages, etc.)

	AI	Cooks, et al., "Ion trap mass spectrometers: designs and potential applications," Proceedings of the 49 th ASMS Conference on Mass Spectrometry and Allied Topics, Chicago, Illinois, 2 pages, May 27-31, 2001.
	AJ	Hansel, W., et al., "Atom Chip for Transporting and Merging Magnetically Trapped Atom Clouds," published online at xxx.lanl.gov, Publ. No. quant-ph/0008111, 3 pages, December 12, 2001.
	AK	Drndic, M., et al., "Micro-electromagnets for atom manipulation," Applied Physics Letters, Volume 72, Number 22, pp. 2906-2908, June 1, 1998.
	AL	Folman, R., et al., "Controlling Cold Atoms using Nanofabricated Surfaces: Atom Chips," Physical Review Letters, Volume 84, Number 20, pp. 4749-4752, May 15, 2000.
	AM	Bui, H.A., et al., "Windows Version of the Ion Trap Simulation Program ITSIM: a Powerful Heuristic and Predictive Tool in Ion Trap Mass Spectrometry," Journal of Mass Spectrometry, Vol. 33, pp. 297-304, John Wiley & Sons, Ltd., 1998.
	AN	Badman, E.R., et al., "Cylindrical Ion Trap Array with Mass Selection by Variation in Trap Dimensions," Analytical Chemistry, Vol. 72, No. 20, pp. 5079-5086, October 15, 2000.
	AO	Kornienko, O., et al., "Field-Emission Cold-Cathode EI Source for a Microscale Ion Trap Mass Spectrometer," Anal. Chem., Vol. 72, pp. 559-562, Feb. 1, 2000.
	AP	Reichel, J., et al., "Atomic Micromanipulation with Magnetic Surface Traps," Physical Review Letters, Vol. 83, No. 17, pp. 3398-3401, Oct. 25, 1999.
	AQ	Sinha, M.P., "Development of a Miniaturized Gas Chromatograph-Mass Spectrometer with a Microbore Capillary Column and an Array Detector," Anal. Chem., Vol. 63, pp. 2012-2016, 1991.
	AR	Jefferts, S.R., et al., "Coaxial-resonator-driven rf (Paul) trap for strong confinement," Physical Review A, Vol. 51, No. 4, pp. 3112-3116, April 1995.

EXAMINER	DATE CONSIDERED

***Examiner:** Initial if reference considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant

	AS	Shivashankar, G.V., et al., "Single DNA molecule grafting and manipulation using a combined atomic force microscope and an optical tweezer," <i>Appl. Phys. Lett.</i> , Vol. 71, pp. 3727-3729, 1997.
	AT	DeVoe, R.G., "Elliptical ion traps and trap arrays for quantum computation," <i>Physical Review A</i> , Vol. 58, No. 2, pp. 910-914, August 1998.
	AU	Prestage, J.D. et al. "New ion trap for frequency standard applications," <i>J. Appl. Phys.</i> Vol. 66 (3), pp. 1013-1017, August 1, 1989.
	AV	Jefferts, S.R., et al., "Paul Trap for Optical Frequency Standards," <i>IEEE Transactions on Instrumentation and Measurement</i> , Vol. 44, No. 2, pp. 148-150, April 1995.
	AW	Folman, R., et al., "Mastering the language of atoms," <i>Nature</i> , Vol. 413, pp. 466-467, October 4, 2001.
	AX	Muller, D., et al., "Guiding Neutral Atoms Around Curves with Lithographical Patterned Current-Carrying Wires," <i>Physical Review Letters</i> , Vol. 83, No. 25, pp. 5194-5197, December 20, 1999.
	AY	Weinstein, J.D., et al., "Microscopic magnetic traps for neutral atoms," <i>Physical Review A</i> , Vol. 52, No. 5, pp. 4004-4009, November 1995.
	AZ	Denschlag, J., et al., "Guiding Neutral Atoms with a Wire," <i>Physical Review Letters</i> , Vol. 82, No. 10, pp. 2014-2017, March 8, 1999.
	AA-1	Fortagh, J., et al., "Miniaturized Wire Trap for Neutral Atoms," <i>Physical Review Letters</i> , Vol. 81, No. 24, pp. 5310-5313, December 14, 1998.
	AA-2	McAuley, S.A., et al., "Silicon micromachining using a high-density plasma source," <i>Journal of Physics D: Applied Physics</i> , No. 34, pp. 2769-2774, 2001.
	AA-3	Brewer, R.G., et al., "Planar ion microtraps," <i>Physical Review A</i> , Vol. 46, No. 11, pp. R6781-6784, December 1, 1992.
	AA-4	Hansel, W., et al., "Trapped-Atom-Interferometer in a Magnetic Microtrap," <i>Phys. Rev. A</i> , Vol. 64, Nov. 2001, pp 0636027-1 to 0636027-6.
	AA-5	Badman, E.R., et al., "Fourier Transform Detection in a Cylindrical Quadrupole Ion Trap," <i>Analytical Chemistry</i> , Vol. 70, No. 17, pp. 3545-3547, September 1, 1998.
	AA-6	Badman, E.R., et al., "A miniature Cylindrical Quadrupole Ion Trap: Simulation and Experiment," <i>Anal. Chem.</i> , Vol. 70, No. 23, pp. 4896-4901, December 1, 1998.
	AA-7	Ferran, R.J., et al., "High-pressure effects in miniature arrays of quadrupole analyzers for residual gas analysis from 10^{-9} to 10^{-2} Torr," <i>J. Vac. Sci. Technol. A</i> 14(3), pp. 1258-1265, May/June 1996.
	AA-8	Stalder, R.E., et al., "Micromachined array of electrostatic energy analyzers for charged particles," <i>J. Vac. Sci. Technol. A</i> 12(4), pp. 2554-2558, Jul/Aug. 1994.
	AA-9	Wells, J.M., et al., "A Quadrupole Ion Trap with Cylindrical Geometry Operated in the Mass-Selective Instability Mode," <i>Analytical Chemistry</i> , Vol. 70, No. 3, pp. 438-444 February 1, 1998.
	AA-10	Reichel, J., et al., "Applications of Integrated Magnetic Microtraps," <i>Appl. Phys. B</i> 72 (2001), pp. 81-89.
	AA-11	Darling, R.B., et al., "Micromachined Faraday Cup Array Using Deep Reactive Ion Etching," <i>Proc. 14th Int. Conf. Micro Electro Mechanical Systems, (MEMS-2001)</i> , presented Jan. 21-25, 2001, Interlaken, Switzerland, pp. 90-94.
	AA-12	Lammert, et al., "Developments on the Toroid Ion Trap Analyzer," presented at the 47 th ASMS Conference on Mass Spectrometry and Allied Topics, Dallas, TX, 2 pages, 13-17 June 1999.
	AA-13	March, R.E., "Quadrupole Ion Trap Mass Spectrometer," <i>Encyclopedia of Analytical Chemistry</i> , pp. 11848-11872, John A. Wiley & Sons Ltd., Chichester, 2000.
	AA-14	Jonscher, K.R., et al., "The Whys and Wherefores of Quadrupole Ion Trap Mass Spectrometry," <i>Ion Trap Mass Spectrometry</i> , published online at: http://www.abrf.org/ABRFNews/1996/September1996/sep96iontrap.html , 14 pages, March 11, 2003.

***References listed beyond AZ would list as AA-1, AB-2, AC-3 thru AZ-26.

***Note First Page ONLY Header/Footer. Subsequent pages must ONLY have page # layout as header